

***FlyBy Math™* Alignment**
Alabama Course of Study: Mathematics
Adopted 2003

Number and Operations

Students will:

1. Use various strategies and operations to solve problems involving real numbers.

- Applying proportional reasoning

***FlyBy Math™* Activities**

--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

Algebra

Students will:

4. Graph linear relations by plotting points or by using the slope and y-intercept.

- Determining slopes and y-intercepts of lines
- Calculating the slope of a linear relation given as a table or graph

***FlyBy Math™* Activities**

--Plot points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system to describe the motion of two airplanes.

--Represent distance, speed, and time relationships for constant speed cases using linear equations and a Cartesian coordinate system.

--Interpret the slope of a line in the context of a distance-rate-time problem.

5. Solve problems involving linear functions.

- Identifying functions from information in tables, sets of ordered pairs, equations, graphs, and mappings.
- Determining the rule that defines a function.
- Classifying relations as linear or nonlinear by examining tables, graphs, or simple equations.

--Represent distance, speed, and time relationships for constant speed cases using linear equations and a Cartesian coordinate system.

Data Analysis and Probability

Students will:

13. Interpret data from populations, using given and collected data.

- Representing the data with the most appropriate graph, including box-and-whisker plot, circle graph, and scatterplot.

***FlyBy Math™* Activities**

--Conduct simulation and measurement for several aircraft conflict problems.

--Represent distance, rate, and time data using tables, line plots, bar graphs, and line graphs.

--Choose among tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.